

**TRANSLATION**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>031132WO</b>	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/012980</b>	International filing date ( <i>day/month/year</i> ) <b>16.11.2004</b>	Priority date ( <i>day/month/year</i> ) <b>18.11.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>F27B9/26, F27B9/30, F27B9/38, F27D23/00</b>		
Applicant <b>OTTO JUNKER GMBH</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> ( <i>sent to the applicant and to the International Bureau</i> ) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> ( <i>sent to the International Bureau only</i> ) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/012980

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-7 as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 1-8 as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/2-2/2 as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>4-8</u>	YES
		Claims <u>1-3</u>	NO
	Inventive step (IS)	Claims _____	YES
		Claims <u>1-8</u>	NO
	Industrial applicability (IA)	Claims <u>1-8</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
1	The present reports refers to the following documents:		
	D1: DE 34 20 147 C1		
	D2: US-A-3 778 221		
2	<b>Novelty (PCT Article 33(1) and (2))</b>		
2.1	The present application does not meet the requirements of PCT Article 33(1) because the subject matter of independent claim is not novel (PCT Article 33(2)).		
	D1 discloses a mobile sluice in a tunnel oven (figure 1, (7)(1); column 1, lines 66-68; column 2, lines 15-19) for burning ceramic products. The oven and the sluice have gas-tight, closable service doors (figure 1, 2). The tunnel oven is arranged outside the conveying direction of the conveyor unit (figure 2). The sluice is moved from a first position, in which it is charged, via a track arranged perpendicular to the oven into a second position in which the charge is unloaded into the oven (figure 2). The oven described in D1 is not suitable for elongate matter either.		

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	<p>D1 thus has all the essential technical features of independent claim 1. Independent claim 1 is therefore not novel (PCT Article 33(1) and (2)).</p> <p><b>2.2</b> The subject matter of independent claims 2 and 3 is not novel either, for the following reasons:</p> <p>D1 discloses an end drier or pre-heater or a storage track (figure 1, (6)) as a conveyor unit that is arranged parallel to the oven (1) and which, having a track arranged perpendicular to the oven, serves as a guideway along which the sluice can travel. The charge is introduced into the oven in a direction contrary to the conveying direction. Dependent claim 2 is therefore not novel.</p> <p>D1 discloses a sluice supported on a car that can be displaced on tracks, wherein the car can be considered a carriage. Dependent claim 3 is therefore not novel.</p> <p><b>3 Inventive step (PCT Article 33(1) and (3))</b></p> <p><b>3.1</b> Dependent claim 4 concerns a minor structural modification of the kind that a person skilled in the art usually does on the basis of familiar consideration, especially since the advantages achieved thereby are readily foreseeable. Consequently, the subject matter of claim 4 does not involve an inventive step either.</p> <p><b>3.2</b> The features of dependent claims 5-8 have already been used for the same purpose in a similar tunnel oven as per D2. It was therefore obvious for a person skilled</p>

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	<p>in the art to apply these features from D2 to a tunnel oven as per D1 with corresponding effect and to arrive in this way at a tunnel oven as per claims 5-8. The reasons for this are as follows:</p> <p>D2 discloses a tunnel oven with a heating zone and a cooling zone therebehind (figure 11, reference signs 12, 16, 26; column 10, lines 38-42).</p> <p>The sluice chamber in D2 is designed as a vacuum chamber (figure 11, reference signs 4, 190; column 2, lines 35-39).</p> <p>The sluice chamber in D2 is docked to a first heating chamber (figure 11, reference sign 8) via which the sluice chamber can be evacuated and filled with hydrogen as a protective gas (figure 11).</p> <p>The charge opening is sealed by a door so as to be gas-tight (figure 1, reference signs 6, 9).</p>